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Seventh United Nations Regional Cartographic Conference for the Americas

Report of the Secretary-General

I. Introduction

1. The Seventh United Nations Regional Cartographic Conference for the Americas, convened in accordance with Economic and Social Council decision 1997/292 of 23 July 1997, was held in New York from 22 to 26 January 2001. The Conference was attended by 136 representatives and observers from 34 countries and territories,[1] 18 intergovernmental/international scientific organizations[2] and 14 invited speakers. The Conference elected the representative of Mexico as President.

2. The provisional agenda of the Conference was prepared by the United Nations Regional Cartographic Conference for the Americas at its sixth session (New York, June 1997). The Conference has been recognized as a regional forum where governmental officials, planners, scientists and experts from the Americas and other regions address the common needs and problems, experiences and best practices in the fields of cartography and geographic information. The Conference considered the progress made in the development and implementation of national spatial data infrastructures since the Sixth Conference and the specific contributions of cartography and geographic information in support of the implementation of Agenda 21.

3. The work of the Conference was organized around three technical committees, established to deal with a range of specific issues pertinent to cartography, surveying, land management, GIS technology and spatial data infrastructure in support of sustainable development, as defined by an agenda item of the Conference. Committee I, on development needs and institutional capacity-building, was chaired by the representative of the International Institute of Survey (ITC); Committee II, on fundamental data collection and management, was chaired by the representative of Mexico; and Committee III, on spatial data infrastructure development in the Americas, was chaired by the representative of the United States of America.

4. The Conference adopted nine resolutions and a vote of thanks. The resolutions reflected both the geographic information issues expressed in plenary sessions and specific matters debated in the three technical committees of the Conference. The proceedings of the Conference will be published in one volume, containing the report and the resolutions. (The report alone will be made available on the Cartography and Geographical Names Web site, to be established by the Statistics Division of the United Nations Secretariat.) The technical papers submitted to the Conference were distributed to the participants.

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II. Findings

5. The Conference reviewed the status of the resolutions of the Sixth United Nations Regional Cartographic Conference for the Americas and acknowledged the establishment of the Permanent Committee on Spatial Data Infrastructure for the Americas (PC-IDEA) in Bogotá, Colombia, on 29 February 2000. The Conference recognized the importance of continuing the development of the South American Geodetic Regional System (SIRGAS), with particular emphasis on a common vertical reference system for the region, including North America and the Caribbean. At the same time, the Conference recognized the importance of reforming, re-engineering and strengthening national mapping organizations in order to lead the way in framework development for national spatial data infrastructure, and of creating national conditions that will guarantee that the infrastructure for geographic information activities is supported as a strategic policy. The Conference also acknowledged the importance of holding an interregional workshop on policies and programmes for educational, training and professional capacity-building which will ensure the development of appropriate land administration systems and associated spatial data infrastructures.

6. Country reports were provided by 12 of the countries attending the Conference, including seven reports from the Americas region: Argentina, Brazil, Canada, Colombia, Cuba, United States of America, and Venezuela; and five reports from China, Cyprus, Germany, Sri Lanka and the United Kingdom of Great Britain and Northern Ireland. Major trends in the Americas region, according to the reports, include:

(a) The identification of essential development needs priorities, relating to national spatial data infrastructure policy and programmes, GIS standards, and cadastral systems;

(b) The gap between spatial data specialists and policy makers, which needs to be bridged to help guarantee the required level of budgetary support for national mapping organizations;

(c) The strengthening of communication and cooperation between countries in the region for the acquisition and sharing of spatial data, through the activities of the Permanent Committee on Spatial Data Infrastructure for the Americas (PC-IDEA).

7. The Conference, through the work of Committee I, on development needs and institutional capacity-building, presented and discussed relevant aspects related to capacity-building experiences in different countries, the possibility of making the incorporation of capacity-building components compulsory in all projects supported by international and national organizations, and the analysis of specific needs at different levels of education and training. An interesting research/training/application approach was discussed by the Committee. The work of the Committee dealt also with the important institutional strengthening issues, including education and training and the need for information on, and access to, consistent education and training programmes. The Pan-American Institute of Geography and History (PAIGH) was suggested as an organization interested in supporting capacity-building efforts in the Americas.

8. The Conference, through the work of Committee II, on fundamental data collection and management, acknowledged the progress made during the past four years regarding the implementation of the South American Geodetic Regional System (SIRGAS) as the basis for regional geographic information system applications. The Committee reported that a highly accurate geodetic network covering South America had been established by 1997 and a single geocentric datum and a South American geodetic reference system had been defined. It was noted that a number of the techniques employed, in particular GPS, produced valuable results and also achieved a degree of technology transfer for participating members, particularly in the developing countries that participated. The Conference, encouraged by these achievements, stressed the need to continue the definition and development of a common vertical reference system for the region, including North America and the Caribbean. The work of the Committee also addressed fundamental data issues such as data integrity, fundamental data definition, and data collection promotion and data accessibility.

9. Spatial data infrastructure development in the Americas was covered by Committee III. The Committee discussed the promotion of the development of such infrastructures in the Americas and proposed the following:

(a) Improving the understanding of spatial data infrastructure (SDI), starting with a translation of the Global Spatial Data Infrastructure (GSDI),

implementation guide (so-called GSDI cookbook) into Spanish;

(b) Supporting PC-IDEA as the relevant SDI body of the Americas;

(c) Implementing SDI on a national basis;

(d) Participating in the Global Mapping project.

The work of the Committee also addressed technical issues dealing with the content of SDI, including the definition of a common geodetic reference frame, the necessity of integrating cadastral and topographical data bases, the development of metadata and clearinghouse sites, and the employment of international standards (ISO/TC 211) in the implementation of national and regional SDI.

10. Presentations from international scientific organizations highlighted the significant developments and advances in positioning techniques; digital photogrammetry, digital mapping and other technology associated with geo-spatial information, in particular their involvement and contribution in support of spatial data infrastructure initiatives. The current achievements in spatial standards were presented, with emphasis on their goals to support understanding of the use of geographic information, increase availability access, integration and sharing of geographic information, and assist in the establishment of spatial data infrastructure at the local, regional, and global levels. One presentation discussed one of many possible economies regarding efficient pricing and how it affects a national mapping agency (NMA). The presentation proposed that, due to the emergence of spatial information infrastructure concepts and to changes from natural monopolies providing a public good to a new environment characterized by privatization and economic competition and efficiency, NMAs needed to consider their position in the spatial data community, particularly regarding supply of and access to spatial data.

11. Technical cooperation programmes, undertaken in Central America by the World Bank, were described. There have been numerous land-related projects throughout Central America, and the specific land administrative project in El Salvador was highlighted. The World Bank presentation reported on the lessons that the Bank had learned from those experiences and their implications for international cooperation. The World Bank approach to establishing SDI and the rationale for Bank support of SDIs as a key component of many projects were described. The Bank will initiate an economic study to evaluate the economic value and utility of SDIs, showing them to be a key part of infrastructure for economic development. Afterwards, partnerships should develop between the World Bank and other parties interested in SDI, including the United Nations and the Permanent Committee on SDI for the Americas.

12. The deliberations of the three committees confirmed that the concept of national spatial data infrastructure is gaining recognition as a fundamental asset of a society, equal to its roads, communications networks, and other public utilities. It is becoming clear that for a national spatial data infrastructure to succeed, a number of pre-existing factors need to be in place, including political stability, understanding on the part of leadership of the value of spatial data, an operative base infrastructure, the ability to begin the construction of large-scale databases, and the means for education and training. It is also widely accepted that investment in fundamental data is crucial and that the increased use of spatial data in numerous sectors is a driving force in many economies. The challenge for the cartographic/SDI community is not only knowing how to harness the enormous potential of geographic information/SDI technologies but also having the ability to restructure national mapping agencies and other governmental organizations to cooperate with one another and to create regional and global data infrastructure standards.

13. A list of the 10 resolutions adopted by the Conference and the proposed provisional agenda for the Eighth United Nations Regional Cartographic Conference for the Americas are attached in annexes I and II below. The activities recommended by the Conference and those required for the preparation of the Eighth Conference, deemed to be of a continuing nature, have been included in the medium-term plan under programme 7, subprogramme 5, for the period 2002-2005, and it is anticipated that they will be incorporated into the proposed programme budget for the biennium 2004-2005. Inclusion of these activities is not expected to give rise to additional expenditures. In the proposed programme budget for the biennium 2002-2003, these activities, which are of a continuous nature, fall under section 9 (economic and social affairs).

III. Recommendations to the Council

14. In view of the continued and important contributions made by cartography, geo-information technologies and SDI applications to decision makers, planners, scientists and the public at large and the essential contribution that the United Nations Cartographic Conferences for the Americas and the Permanent Committee on SDI for the Americas continue to provide to member States in the geographic information field, the Seventh United Nations Regional Cartographic Conference for the Americas recommended that the Economic and Social Council:

(a) Endorse the recommendation of the Conference that the Eighth United Nations Regional Cartographic Conference for the Americas should be convened for five working days no later than early 2005, with a primary focus on the continued and strengthened contribution of cartography and geographic information in support of the implementation of Agenda 21;

(b) Request the Secretary-General to take measures, where appropriate and within available resources, to implement the other recommendations made by the Conference. In particular, the United Nations should continue to support surveying, mapping and spatial data infrastructure activities in the Americas region and, inter alia, continue, within available resources, to facilitate the participation of the least developed countries and the small island developing States of the region.

Notes

[1] Argentina, Brazil, Benin, Bolivia, Brunei Darussalam, Canada, China, Colombia, Cuba, Cyprus, Dominican Republic, Ecuador, Finland, Germany, Guatemala, Honduras, India, Japan, Kazakhstan, Mexico, Monaco, Namibia, Netherlands, Oman, Panama, Peru, Russian Federation, Spain, Syrian Arab Republic, Turkey, United Kingdom of Great Britain and Northern Ireland, United States of America, Venezuela, Holy See.

[2] Pan American Institute of Geography and History (PAIGH), Permanent Committee on Spatial Data Infrastructure for the Americas (PC-IDEA), Permanent Committee on Geographic Information System Infrastructure for Asia and the Pacific (PCGIAP), Association of South-East Asian Nations (ASEAN), Federation of Land Surveying and Geomatics (FLAG), International Cartographic Association (ICA), International Society for Photogrammetry and Remote Sensing (ISPRS), International Federation of Surveyors (FIG), International Union of Geodesy and Geophysics (IUGG), International Institute for Aerospace Survey and Earth Sciences (ITC), ISO/TC 211, EuroGeographics, United Nations Educational, Scientific and Cultural Organization (UNESCO), International Civil Aviation Organization (ICAO), United Nations Environment Programme (UNEP), Organization of Islamic Capitals and Cities (OICC), World Bank, World Meteorological Organization (WMO).

Annex I

List of resolutions

1. Development needs
2. Institutional capacity-building, education and training
3. Economic aspects of modern surveying, mapping, geospatial data infrastructure and land administration
4. Fundamental data: SIRGAS project
5. Land administration and spatial data infrastructure
6. Contribution of the Permanent Committee on Spatial Data Infrastructure for the Americas (PC-IDEA)
7. Implementation of national spatial data infrastructures in the Americas
8. Global map
9. United Nations Geographic Information Working Group
10. Vote of thanks

Annex II

Provisional agenda for the Eighth United Nations Regional Cartographic Conference for the Americas

1. Opening of the Conference.
2. Election of the President and other officers of the Conference.
3. Objectives of the Conference.
4. Organizational matters:
   (a) Consideration and adoption of the rules of procedure;
   (b) Adoption of the agenda;
   (c) Establishment of committees and election of Chairmen;
   (d) Organization of work;
   (e) Credentials of representatives.
5. Country reports.
6. Reports on the implementation of resolutions adopted at the Seventh United Nations Regional Cartographic Conference for the Americas.
7. Report of the Permanent Committee on SDI for the Americas (PC-IDEA).
8. Reports on achievements in geographic information in addressing national, regional, and global issues, including:
   (a) Strategy, policy, economic and institutional issues;
   (b) Spatial data infrastructures;
   (c) Geospatial data collection, management and dissemination;
   (d) Best practices and applications.
9. Adoption of resolutions and the report of the Eighth United Nations Regional Cartographic Conference for the Americas.
10. Review of achievements of the Conference.
11. Provisional agenda of the Ninth United Nations Regional Cartographic Conference for the Americas.